



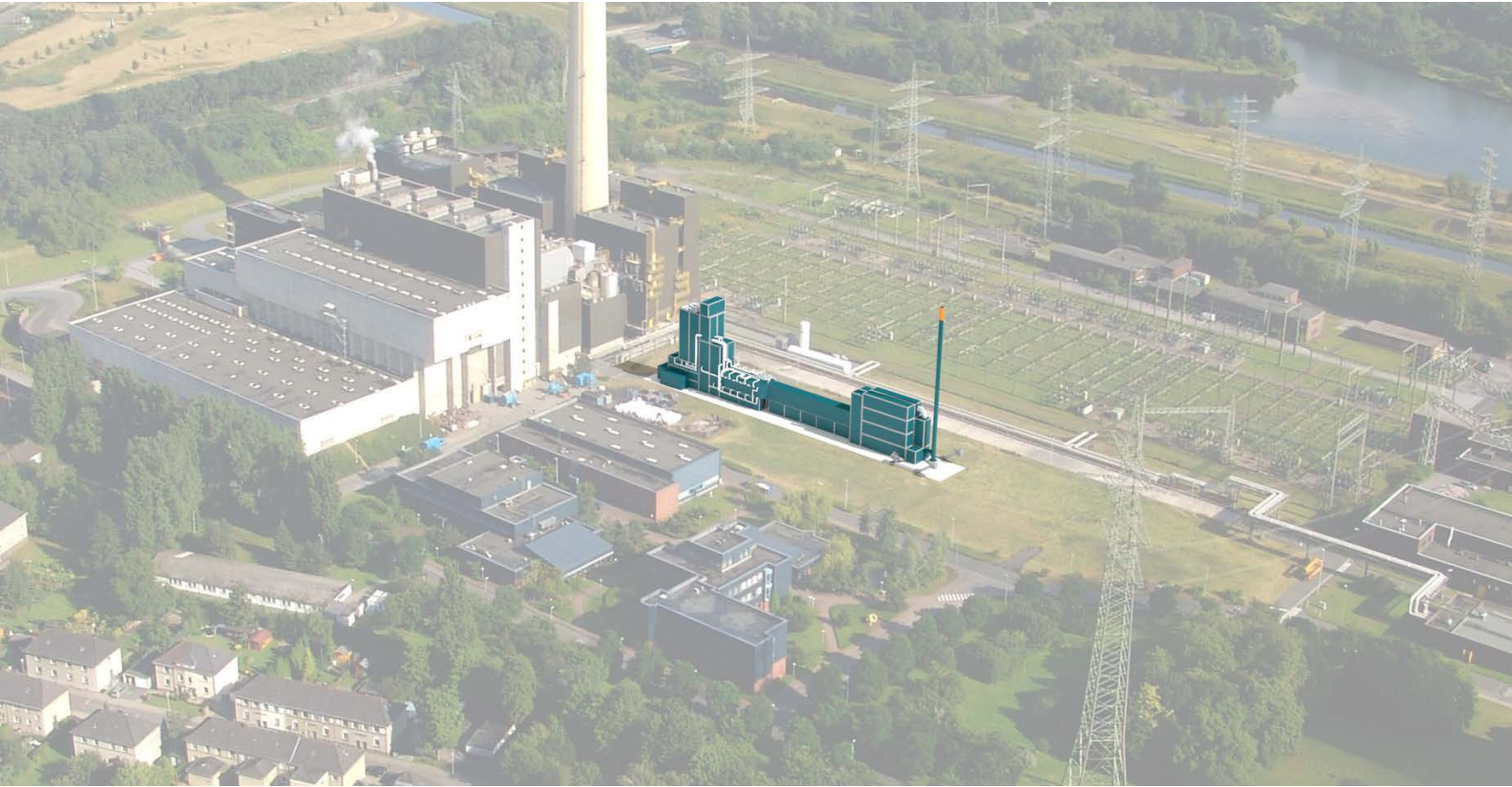
W O I M A

CORPORATION

## USE CASE



EXTENDING EXISTING  
WtE FACILITY



## EXTENDING EXISTING WASTE-TO-ENERGY FACILITY

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Typical waste-to-energy projects are designed and built for purpose, in most cases certain waste quantity. They respond poorly to long-term fluctuations in waste feedstock. The modular *wasteWOIMA*® plant solves this challenge. It acts as a power-generating buffer utilizing the excess waste streams. The container-sized modules are prefabricated to include all the technical equipment making up the power plant and are thus easy and fast to deliver onto the site, construct and commission.

Waste generation is affected by a number of sometimes unpredictable factors that make it difficult to forecast future waste quantity trends.

These include e.g.

- population growth
- economic growth
- urbanization
- recycling activities
- environmental regulations

For these reasons it may be impossible, or at least impractical, to try to optimize a large waste-to-energy facility to cover all future scenarios.

The *wasteWOIMA*® power plant offers a flexible solution to this challenge. The scalable plant can be built adjacent to the larger facility possibly using existing permits and connected to the same utilities as the "mother plant". It can serve as a buffer plant for excess normal waste, such as MSW, or expand the operations to new, more profitable waste feedstocks, like industrial waste streams. The independent *wasteWOIMA*® plant can also serve the community's waste reduction and power generation needs during mother plant's maintenance periods.

The *wasteWOIMA*® power plant design is based on standard 20' and 40' container-sized modules, which simultaneously act as

- easily transportable units
- secure enclosures
- installation platform for technical solutions
- protective housing on-site

There is no power plant building causing additional costs or slowing down the erection process. The modules are simply bolted together to form the operational power plant. All the modules have been designed with efficient and fast transportation, erection, dismantling and relocation in mind.

Thus, the whole *wasteWOIMA*® power plant project can be planned as a temporary solution for an interim challenge, such as disposing of occasional waste streams or emptying an existing landfill. Once the primary waste management actions, such as waste reduction, recycling and reuse kick in, the plant can be dismantled and relocated, or assigned for new waste streams. Relocating the plant protects some 90% of the original investment. Only the concrete foundations are left behind.

One WOIMAline uses ~65,000 tons of MSW or ~50,000 tons of RDF / industrial waste p.a. This translates to 5.0 MW<sub>e</sub> of electricity or 2.5 MW<sub>e</sub> / 13 MW<sub>th</sub> in co-generation. Up to four WOIMAlines can be interconnected to form a larger *wasteWOIMA*® power plant. The plant can connect directly to the mother plant's step-up transformer, district heating or steam network, depending on customer's preference.

The plant is easily delivered, quick to install, cost-efficient to run and simple to maintain offering all stakeholders significant benefits. Relocation to a close-by site can be done within four-to-six months.

## BENEFITS:

### WASTE MANAGEMENT

- Creating new business potential
- Simplifying waste logistics
- Reducing environmental impacts
- Matching future regulations
- Postponing landfill investments
- Green image benefits

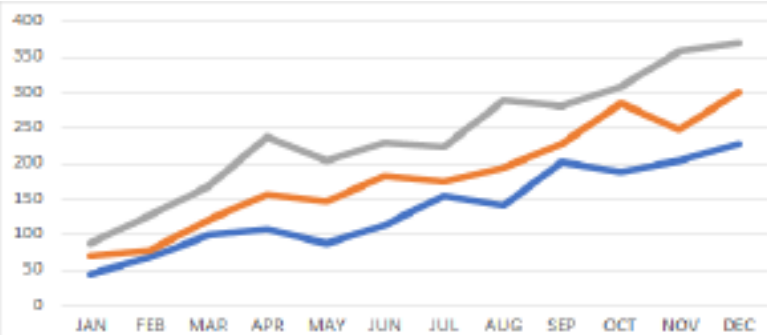


### POWER & UTILITY

- Decentralizing power generation
- Enabling off-grid solutions
- Offering fuel & production flexibility
- Harnessing endless fuel source
- Utilizing carbon credit schemes
- Fast plant delivery

### INVESTORS

- Excellent return on investment (ROI)
- Scalable business model
- Diversified investment portfolio
- Vendor arranged funding
- Fast project roll-out
- Plant relocation option



### OTHER STAKEHOLDERS

- Turning waste into local welfare
- Health & environmental benefits
- Local reliable energy supply
- Educational & job opportunities
- Improving living conditions
- Implementing development funding



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